### **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



Zerve A 292.9 So 3Fe

### WATER SUPPLY OUTLOOK FOR WASHINGTON



### U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.



### TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Mast af the usable water in western states ariginates as mountain snawfall. This snowfall accumulates during the winter and spring, several manths before the snow melts and appears as streamflaw. Since the runaff fram precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflaw farecasts published in this repart are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snaw accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snaw depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly ar semi-manthly fram January 1 through June 1 in most states. There are about 1900 snow caurses in Western United States and in the Columbia Basin in British Calumbia. Networks of autamatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a cantinuous record of snow water and other parameters at key locations.

Detailed data on snow course and sail maisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and sail moisture conditions at valley elevations are also included. The report for Western United States presents a braad picture of water supply outlook conditions, including selected streamflaw forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Sail Conservation Service by states about every five years. Data far the current year is summarized in a West-wide basic data summary and published about October 1 af each year.

COVER PHOTO: SNOW COURSE MEASUREMENTS BY A SURVEY TEAM IN UTAH'S WASATCH RANGE.

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports fallowing the principal snaw survey dates from January 1 through June 1 in coaperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Roam 510, 511 N.W. Broadway, Partland, Oregon 97209.

Copies of state and local reports may also be obtained fram state offices of the Sail Canservation Service in the fallowing states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Ancharage, Alaska 99504
Arizana	Room 3008, 6029 Federal Building, Phoenix, Arizona 85025
Calorado (N. Mex.)	P. O. Bax 17107, Denver, Colorada 80217
Idaho	Roam 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P.O. Bax 98, Bazeman, Mantana 59715
Nevada	P. O. Box 4850, Rena Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 Sauth State St., Salt Lake City, Utah 841 38
Washingtan	360 U.S. Caurt House, Spokane, Washington 99201
Wyoming	P. O. Bax 2440, Casper, Wyoming 82602

ENT of

### PUBLISHED BY OTHER AGENCIES

Water Supply Outlack reports prepared by other agencies include a repart for California by the Water Supply Forecast and Snaw Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramenta, California 95802 --- and for British Calumbia by the Department of Lands, Farests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

### WATER SUPPLY OUTLOOK FOR WASHINGTON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R.M. DAVIS

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON. D C

Released by

GALEN S. BRIDGE

STATE CONSERVATIONIST SOIL CONSERVATION SERVICE SPOKANE, WASHINGTON

In Cooperation with

WILBUR G. HALLAUER

DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

Report prepared by

ROBERT T. DAVIS, Snow Survey Supervisor and

NORINE P. KENT, Statistical Assistant

SOIL CONSERVATION SERVICE 360 U.S. COURTHOUSE SPOKANE, WASHINGTON 99201



### WATER SUPPLY OUTLOOK

### IMPORTANT NOTICE REVISION OF FREE MAILING LIST

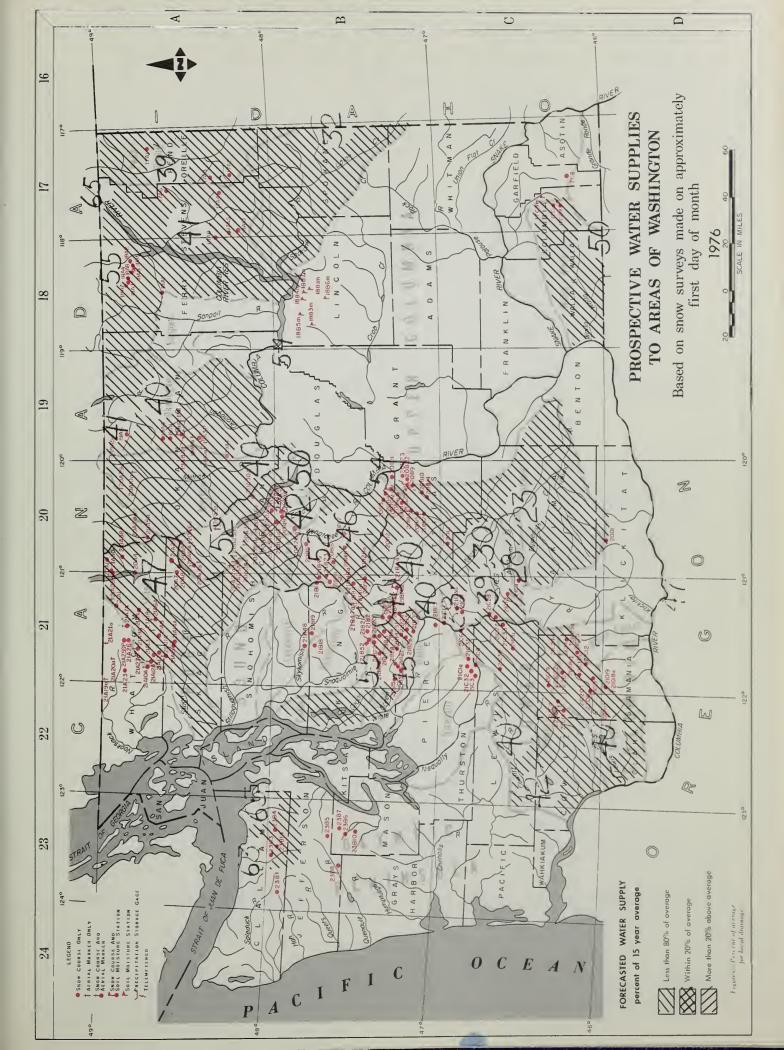
IF YOU WISH TO CONTINUE to receive this publication, please turn to the back page, read the instructions, ---TEAR OFF THE BACK COVER of this bulletin, sign your name, fold it on the heavy line, staple or tape, and ---MAIL IMMEDIATELY.

IF THE BACK COVER IS NOT RETURNED WITHIN 30 DAYS, YOUR NAME WILL BE REMOVED FROM OUR LIST.

THIS NOTICE IS REQUIRED BY THE CONGRESSIONAL JOINT COMMITTEE ON PRINTING FOR THE ANNUAL REVISION OF FREE MAILING LISTS.

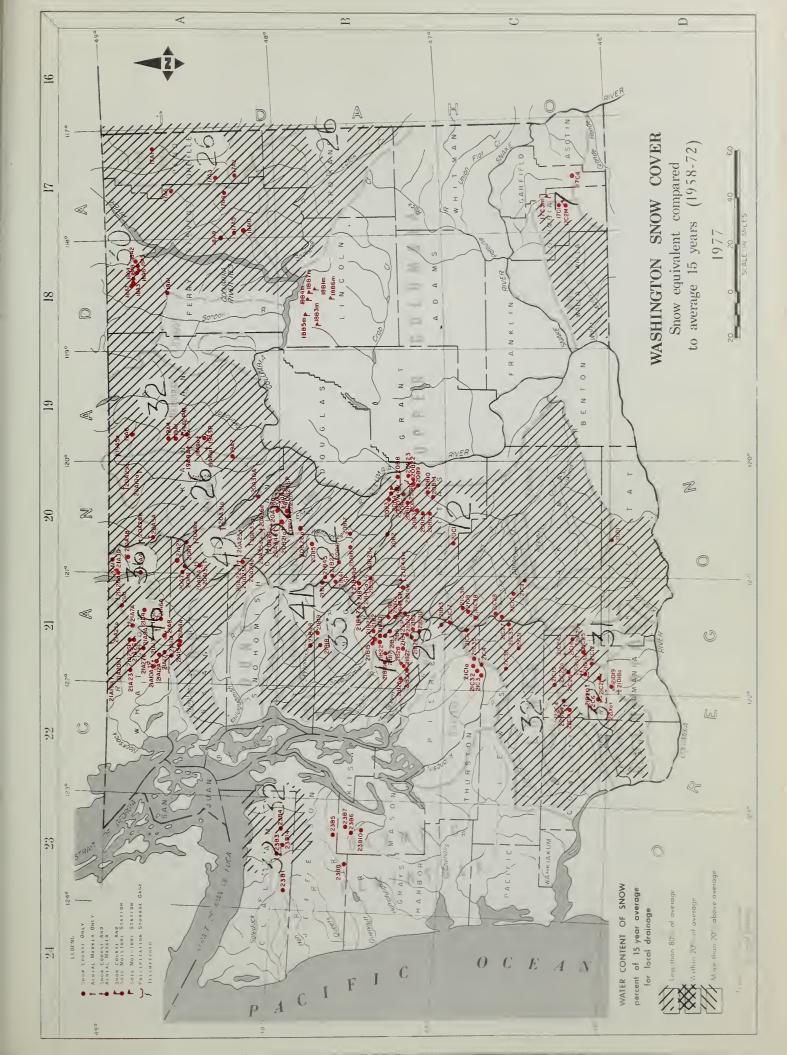
Please make any address corrections before mailing.





# INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

FLEV.	2200 3680 6000 5900 3500 3500 3500 4200	4900 3800 5200 5200 800 3600 2100 3400 1600 4500	5100 5700 3700 4300 5200	5200	4500 4700 3000 5200 3900 3900	ີ ບ <b>∀</b>
ANGE	126 126 126 126 106 101 101 106 146 146 146	718 88 81111 918 919 88 88 88 88 88 98 98 98	7E 8E 7E 9E 9E 9E		W	1 1 1 0 8 A C C E
J TWP. E	39N 40N 40N 40N 40N 36N 36N 35N 35N	350N 350N 350N 350N 350N 350N 350N 350N	40N 40N 38N 39N 40N 40N		29 N 24 N 24 N 25 N 25 N 25 N 25 N 25 N 25	# # # # # # # # # # # # # # # # # # #
Src.	35 26 26 34 14 8 8 25 29 10	27 27 27 27 27 27 27 27 27 27 27 27 27 2	ver 7 20 20 9-10 17 P 17 16	SULA er 1 1 k k	<pre></pre>	LEGEND  S SYSTEM TARMPIT  NY Y  SOLI, MOTOR  TARTON  TOWART GARCT  TOWART GARCT
OE CA	Skagit River 21A4 21A2Ba 21A2Ba 20A4 20A3 21A29 21A29 20A8 21A36	Baker River 21A27a 21A11A 21A7A 21A6A 21A6A 21A12 21A12A 21A10A 21A13 21A13 21A13 21A13 21A13 21A13 21A13	o k so	es es	2383 cmish Ri 2387 2386 23810 2385 2388 educk Ri 2381	LEGEND  NUMBERING SYSTEM CARBIE  COURSE ONLY  MARKED SOLING  COURSE AND ACRIAL MARKER  MOUSTONE STATION  COURSE AND SOLING SURFE  COURSE AND SOLING SURFE  FILLOR  PILLOR
	frail sk Tr il low New s	*	No Sek Tow Pillow	OLYMPIC Dungen Mor	L ak	21A7 Svor Co 21A7 Svor Co 21A7 Svor Co 21A7M Svor Co 21A7M Svor Co 21A7P Svor Co 21A7P Svor Co 21A7P Svor Co
NAMI	Beaver Greek Trai Beaver Pass Brown Top Devils Park Freezout Creek Freezout Gedow Granite Creek Meadows Cabius New Hozomeen Lake Thunder Basin	Baker Pass Dock Butte Easy Pass Japer Pass Komo Kulshan Marten Lake Mount Blum Rocky Creek Schreibers Meadow S. F. Thunder Cree Sulphur Greek Three Mile Creek Matson Lakes	Bald Mountain Canyon Glacier Creek Panorama New Panorama Snow Pillow Twin Lakes	Deer Park Cox Valley	Hurricane Black and White Black and White Black and White Four Stream Four Savet Ilome Sundown Pass Deer Lake	
נרני.	5600 3500 3200 3200 3200 2000 2100 4400 2100 4250 4250 3000	5300 4100 2200 2870 2870 5900 4500 3250	4550 2760 5500 5050	1800 1200 3200 2900 2100 3100	2390 2500 3860 4100 4100 2390 2500 2500 2500 2500 3400 3400	3500 3625 1900 2900
RANGE	101 9E 7E 5E 6E 7E 7E 8B 8B 9E 9E 9E	10E 7E 10E 10E 11E 10E 8	∞ ∞ ∞ ∞ □ □ □ □	111E 8E 9E 8E 8E 8E		9E 11E 9E 9E
TWP.	(P 6 N N N N N N N N N N N N N N N N N N	16N 115N 115N 113N 113N 113N	IAGE 15N 15N 15N	20N 21N 21N 21N 20N 20N 20N 20N		27N 22N 26N 26N
BER SFC	tinue 21 28 28 24 36 22 22 35 29 35 4 16 A 14 A 14 A 14 A 36 A 36	15 23 21 21 21 36 37 37	23 23 23 23 13 13 13 13 13 13 13 13 13 13 13 13 13	er er 18 27 28P 21 7 14 7 14 8 12 9 36	SSP 14 5 5 5 5 5 7 5 5 5 5 5 5 5 5 5 5 5 5 5	River 3 31 19 19 8 26 River 9 33
UMBER	(conti 21C29a 21C25 21C25 21C26 22C5a 22C6 21D19 22C4 21C20a 21C20a 21C3A 21C3A 21C3A	z Rive 21C6 21C19 21C32 21C33 21C33 21C33	PUGET SOUND DRAINA Nisqually River 21 21 22 22 23 23 24 23 24 24 24 24 24 24 24 24 24 24 24 24 24		21850 21831 2184351 21810 21830 21830 21831 21822 21812 21852 21852 21852 21852 21852 21852 21852	almie River 21848 33 2182 2182 21818 20 omish River 21819 33
	e > .	» ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	SOUP:	. 0	C e d a	
	× 4 E	ŭ	UGET N	0.3	3	S
	Lew Divide Meadow Corand Neadow Corand Neadow The Shelter Marble Mountain Narble Mountain Oluman Pass Plains of Abraham Sanith Creek Road Spencer Neadow Suprise Lakes Table Mountain Timberod Peak	s eadows n ake ak eek	PUc	Corral Pass Airstrip Charley Greek Charley Greek Grass Mountain No Grass Mountain No Lester Creek	Lynn Lake Sawmill Ridge Sawmill Ridge Stoowshoe Butte Stampede Pass Twin Camp City Cabin Mt. Gardner Aux. Mt. Gardner Aux. Mt. Lindsay Vt. Washington Ner Rex River South Fork Cedar Tinkham Greek	Alpine Meadow Olallie Meadows South Fork Tolt Lake Elizabeth
NAME	Lugadow Grand Meadow Grand Meadow Lone Phine Sheltt Marble Mountain New Muddy Rivor Oldman Pass Phains of Abrah, Smith Greek Roa Spencer Neadow Surprise Lakes Surprise Lakes Table Mountain Timbered Peak	Cayuse Pass Mosquito Moadow Obnangecosh Packwood Lake Pigtail Peak Potato Hill Willame Greek	Programme Programme Forest Longmire Paradise Park Stem Glade	Corral Pass Airstrip Charley Crec Cougar Mounta Grass Mounta Crester Creek	Lynn Lake Sawmill Ridge Snowsinoe Butte Stampede Pass Twin Camp Mr. Camp Mr. Gardner Aux Mr. Gardner Aux Mr. Lindsay Wt. Washington Rex River South Fork Ceda	ne Meadow lie Meadow h Fork Tol Elizabeth
	Divid Grand Lone Marbl New N Oldma Plain Smith Spenc Spenc Surpr	Cayus Mosqu Ohama Packw Pigta Potat Willa	Ghost Long Parad Stem	Correction Airst Char Couge Grass Grass Leste	Sawmi Sawmi Stamp Stamp Twin Twin Mt. G Mt. G Mt. L Mt. Mt. Mt. Mt. Mt. Mt. Mt. Mt. Mt. Mt.	Alpin Olall South Lake
ELEV	5310 5300 4400 3400 3400	4400 2440 2420 2420 2420 2440 2290 3200 3450 3450 3450	2200 5385 5385 5385 5385 5385 5327 5327 5876	3873 2450 2450 3925 3360 4500 4500	5700 5370 4400 4400	4800 2200 2500 4200
ANGE	20E 20E 20E 20E 20E 20E 20E	20E 34E 31E 33E 32E 32E 33E 32E 14E 112E	205 206 146 1146 1136 1166 1166 1166	135 116 126 136 136 116 116	40E 40E 40E 40E 17E	8 8 8 5 7 7 8 8 6 9 6 9 6 9 6 9 6 9 6 9 6 9 9 6 9 9 6 9 9 6 9
TWP. R	20N 20N 20N 20N 21N 21N 21N 21N 21N 21N	21N 27N 27N 27N 27N 27N 25N 25N 25N 25N 25N 25N 25N 25N 25N 25	20N 20N 24N 20N 20N 20N 20N 20N 20N 20N 20N 20N 20	19N 19N 23N 23N 23N 23N 13N 13N	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	N
src.	onti:: 11 10 11 11 11 12 12 12 12 12 13 18 18 18 34 35 35 35 35 35 35 35 35 35 35 35 35 35			20 113 116 22 22 22 22 12	PRAID  RAID  11  2  11  23  23  ver	35 35 19 25 8 8
	River (conting 20825/F 10 20825/F 10 2082 11 2082 11 2082 12 2083 12 2083 12 2084 18 111 Creek 2088 34	Creek 1881m 1883m 1883m 1885m 1885m 1885m 1885m 2185m 21C1 21C1 21C8 21C36	20810 21844m 2184 21C10 20811 20812 21846a 21846a 21847a 2061 21C17	20814 2188 20826a 20815 20815 21628 21628	NBIA D Creek 17C4 Creek 17C3m 17C1 17C2M 17C2M 17C2M	s River 21C12 s River 21C2a 21C21 22D1a 21C18a
		Crab C 181 181 181 181 181 181 181 182 222 222			LOWER COLUMBIA DRAI  Asotin Greek 1704 9 Mill Greek 1703 1 1703 1 1703 2 1703 1	White Salmon Riv 21012 35 21012 35 21022a 19 22021 25 21018a 24
	Coloech Lower Squill			Side) Lake	A A S KI:	% ↓ 1
:	Wena reck Ju rings rings sta	Upper Wheeler Creston-Kunz Jack Woods Krause Sheffels s Sheffels s Sherman Wheatridge Ahtanum R. S. Big Boulder Creek Bug Boulder Creek Bug boulder Creek Bug boulder Creek	E	ue ss t t (East (Leach	OWER OWER	
ڀ	Trough #2 Colockum Gree Colockum Gree Colockum Cree Sechive Sprin Scout-A-Vista Jump-Off Stemilt Slide	Upper Wheeler Creston-Kunz Jack Woods Krause Sheffels Sheffels Sherman Wheatridge Ahtanum R. S. Big Boulder G Bug Boulder C Bug Boulder C	Cooke Creck Domery Flat Fish Lake Green Lake Grouse Camp High Creck Joe Lake Lake Cic Elum Leman Creck Manastash Manastash Manastash	Frail Creck Thomel Avenue Vun Epps Pass Vaters Flat Vaptus Lake White Pass (E)	LOW Springs	Cultus Creek Blue Lake Bob's Trail Calamity Rid Council Pass
NAME	Wenatche Trough #2 Colockum Creek dipper Colockum Creek Lower Colockum Creek Lower Secont-A-Vista Sump-Off Stemilt, Slide	Upper Wheeler  Creston-Kunz Jack Woods Krause Sheffels Sheffels Sherman Wheatridge Ahtanum R. S. Big Boulder Creek Bug Boulder Creek Bug Doulder Creek Bug Doulder Creek	Cooke Creck Domery Flat Fish Lake Green Lake Grouse Camp High Creek Joe Lake Class Camp High Creek Manastash Manastash Manastash Manastash Manastash Manastash	Trail Creck Trail Creck Tunnel Avenue Van Epass Naters Flat Maptus Lake Mite Pass (Leach Lake)	LOWER COLUMBIA  Spruce Springs  Asotin Cree  17C3m  Homestead  Mill Cree  17C3m  Martin Springs (Helmers SM) 17C2M  Klickitet Ri  Satus Pass	Cultus Creek Blue Lake Bob's Trail Calamity Ridge
SEC. TWP. RANGE ELEV   NAME NUMBER						
SEC. TWP. RANGE ELEV	5250 5000 2970 1450 4070 3170 3150 2150		5700 6000 1300 4500 6750 6400 7000 6500 6500		5425 6500 6500 1600 1600 7000 6510 6510 6400 6400 6200 6300 6400 6500 6500 6500 6500 6500 6500 65	
RANC	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		24E 18E 18E 24E 24E 25E 25E 25E 26E 26E 26E 26E 26E 26E 26E 26E 26E 26			
C. TWP	27 31N 27 31N 27 37N 36 39N 28 39N 28 39N 26 39N 26 39N 26 39N 27 38N 28 38N 28 38N 28 38N		2 3 3 7 N 3 3 3 5 N 8 8 3 5 N 8 8 3 5 N 8 8 3 5 N 8 8 8 8 8 8 8 8 N 8 N 8 N 8 N 8 N 8			
	RIVER 30 30 2.4 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8	20 20 19 19 11 11 11 11 20 0 6 6 ver 19 19 20 10 10 10 10 10 10 10 10 10 1	88a 32 P 18 P 18 PN 33 Oa 15 Oa 10 Oa 10	8 36 36 36 36 36 36 36 36 36 36 36 36 36	0	e River 11823 71841SP 13.7 71841SP 13.3 20816 2085 33.2 20817 1 20817 1 21818 4 21818 1
NUMBER	17.72 17.73 17.73 17.73 17.73 17.73 18.73 18.73 18.73 18.73 18.73 18.73 18.74 18.75	15.7.7 olville Rive 17.46 18.49 17.74 17.75 18.10 anpoil River 18.11 19.41	1981 1984 20428a 1983P 1982PN 1982PN 1986 Kivett 20410a 20429a 20439a	1955 15 15 15 15 15 15 15 15 15 15 15 15 1	20/30A 20/31a + River 20819 20819 20819 20837a 20827a 20827a 208248 20837a 20435a 20435a 20435a	1827 21823 21841SP 2082 20816 2085 20817 20818 2181
NOCA	Pend OreIlle River  Tain 17A2 731N Neadow 17A3 20 33N Creek Rettle River 30 33N Rettle	Colville River 1746 1749 1744 1744 1745 18410 Sanpoil River 1841 Okanogan River 1948a	1941 1944 20A28a 19A3P 19A3P 19A10a 19A10a 19A6 Methow Kive 20A29a 20A5A	Chelan L	En tia	Wenatche (New)
	dow Pen	ain C	- ~ı	C C P C	rail e v Pill	Wencek (New)
	UPP untain is Mea rr Cree Road sek rek K	Mount.	eek N eek N adows n Mtn, lec t Pass	ss Flat adows e k Flat k Ridg	rbor Pass. sadows ver T Ridg e Snow e Snow e Snow e Snow e Snow	11 Cre ass N 6. S ttchee th R.
NAME	UPPER ( Boyer Nountain Burchgrass Meadow Winchester Creek Boulder Road Butte Creek Gatin Creek Goar Creek Snow Caps Creek Snow Caps Creek Snow Caps Creek Snow Cans Trail	Summit G. S. Baird Carlson Chewciah Stranger Mountain Togo Sherman Greek Fass Sherman Greek Fass	Mutton Creek No. Paysayten Rusty Creek Salmon Maddows Starvation Mtn. Touts Coulee Billy Goat Pass Bollar Watch Harts Pass	Torpessone basin Loup Loup C Cloudy Pass Grenwood Flat Little Meadows Lyman Lake Park Greek Flat Park Greek Flat Park Greek Ridge Peterssons	Safety Harbor War Creek Pass Blue Creek G.S. Brief Entiat Neadows Entiat River Trail Four Mile Ridge Fox Camp Pope Ridge Snow Pillow Pugh Ridge Snow Pillow	Wen Berne-Mill Creek Blewett Pass No. 2 Chiwaukum G. S. Lake Wendatchee Leavenworth R. S. Merritt Stevens Pass Stevens Pass Sand Shed
	Boy Bur Win But Cat Cat Sno	Baird Carls Chewc Stran Togo Sherm	Mut Pay Rus Sal Sta Tou Tou Bill Doi	Lou Lou Gre Gre Lit Lym Par Par Pet	Safety War Cr Bluc C Brief Entiad Four b Four b Four b Pope b Pope b Pugh I Shady Shady Tommy	Ber Ber Ble Chi Lak Lea Mer Ste Ste



## INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

	ELEV.	2200 3680 6000 5900 3500 3500 4200	4900 3800 5200 5400 800 3600 5800 5800 2100 3400 1600	4500 4400 5100	3700 4300 4300 5200		5200	4500	4200 4700 3000 5200 3900	3900	3 9 W G.
	ANG	126 126 126 126 166 166 167 167 167 178 178 178 178	76 88 111 1116 1106 88 81 81 81 81 81 81 81 81	9E 7E BE	7E 9E 9E 9E		SW 6W	7.W	SW SW 6W SW 7W	M6	1A710N
2	₩ b.	39N 40N 40N 40N 40N 36N 36N 35N	37N 350N 350N 37N 37N 37N 37N 37N 37N 36N 36N		38N 39N 39N 40N		2BN 29N	29N	24N 24N 23N 25N 25N	2BN	RRER TURE S
	St C.	7 35 9 26 34 14 8 8 8 25 25 29 119	1 B B 119 177 179 179 179 179 179 179 179 179	River 19a 7 20A 20	9-10 17 P 17	SULA	31 31 31 31 31 31 31 31 31 31 31 31 31 3	7 36	17 16 1 28 25	7 14 14 1	ECEND SYSTEM CRAMPL V V V V V V V V V V V V V V V V V V V
	NUMBER	Skagit Rive 21A4 21A1 21A2 20A4 20A1 20A38 21A29 20A6 21A29 20A7 21A30	ker River 21A27a 21A1A 21A6A 21A1A 21A1A 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba 21A1Ba	21AE k sa c k 21AJ 21AJ	21A23 9 21A26 21A25SP 21A21a	C PENINSULA	2384 Morse Creek	Elwha Rive 23B3 okomish Riv		educk Riv	LECEND Swow COURSE ONLY SKOR COURSE ONLY SKOR COURSE AND SET AN SNOR COURSE AND SET AN SON COURSE AND SET AND STOR COURSE AND STOR COURSE AND SET AND STOR COURSE AND STOR COURSE AND SET AND STOR COURSE AND SET AND STOR COURSE AND SET AND STOR COURSE AND STOR COURSE AND SET AND STOR COURSE AND SET AND STOR COURSE AND
		rail New	8 a ddow Creek	° Z	Pillow	OLYMPIC	∑ 5	E1, Skok	Lakes	501	SNOW COU A REIN ON SNOW COU SNOW COU SNOW COU SNOW COU PRECIPIT
	NAME	Beaver Creek Trai. Brown Top Oevils Park Freezeout Teadws Grante Greek Ti Freezeout Nadows Grante Greek Wadows Cabins ww Hosomen Lake Thunder Basin	Baker Pass Dock Butte Easy Pass Jasper Pass Jasper Pass Komo Kulshan Marton Lake Mount Blum Rock Creek Schreibers Meadow J. F. Thunder Creek Sulphur Creek Three Mit Creek	Watson Lakes Bald Mountain Canyon	Glacier Creek Panorama New Panorama Snow Twin Lakes		Oeer Park Cox Valley	Hurricane	Black and White Black and White Four Stream Home Sweet Home Sundown Pass	Deer Lake	2 1 A 7 3 2 2 A A 7 4 2 A 4 7 A 7 A 7 A 7 B 7 B 7 B 7 B 7 B 7 B 7 B
	. LEV.	\$500 \$3500 \$3200 \$200 \$100 \$100 \$400 \$2100 \$200 \$200 \$300 \$300 \$300 \$300 \$300 \$3	5300 4100 2200 2200 5900 4500 3250		4550 2760 5500	0009	1800 1200 3200 2900	2100 3100 4000 5000	3860 4100 2390	3300 2500 2500 3000 3400 3400	3500 3625 1900 2900
	RANGE	10E 9E 7b 5b 6E 7E 5E 6E 7E 8E 9E 9E	10E 7E 10E 10E 11E 10E 8E		BE BE	9E	11E BE 9E	BE 10E BE 11E	11E 11E	10E 10E 9E 9E 9E 10E	9E 11E 9E 10E
	e × ×	N N N N N N N N N N N N N N N N N N N	16N 15N 13N 13N 13N 13N	A G E	15N 15N 15N		20N 21N 21N 20N	20N 20N 20N 19N 20N	21N 19N 21N	22N 22N 22N 22N 22N 21N 21N 21N 21N	27N 22N 26N 26N
	SEC.	nue 21 28 28 28 24 36 22 22 22 23 29 16 114 114 20 36 36 37 37 37 37 37 37 37 37 37 37 37 37 37	er 15 33 28 21 11 11 36 36	Z A	23 29 29 13	_	. 1B 27 27 3P 21	12 36 22 5 5 5	25 18 18 10	30 31 31 8 8 11 11 11	31 31 19 26 26 33
	2 B W O	(conti 21C29a 21C25 21C26 22C5a 22C6 21019 22C1a 22C1a 22C1a 22C1a 21C10a 21C20a 21C20a 21C20a 21C13A	z Rive 21C6 21C6 21C19 21C32 21C33 21C34 21C30	SOUND DRAINA	Nisqually River 21C4 2 21C3 22 21C3 22	River 21813	River 21B24 21B25 21B42SP 21B42SP	21828 21829 21850 21831 21843SP.	21810 21830 River 2183	21821 21822 21816 21816 21817 21817 2186 21820	olmie River 21848 31 2182 19 21818 26 omish River 21819 33
)	Z	0 >	¥ :-	Z 0	loups	White 2	Green		edar		_ E
		S	°	H		>		. 3	U		Snoqu
,		Lew Divide Meadow Grand Meadow Lone Pine Shelter Marble Mountain Mew Muddy Raver Oldman Pass Plains of Abraham Smith Creek Road Spencer Meadow Supprise Lakes Table Mountain Timbered Peak	adows ke k ek	PUG	t rk (New)		ek tain ain M	Grass Mountain No Lester Creek Lynn Lake Sawmill Ridge Snowshoe Butte	S	Aux. gton Cedar eek	dows dows Tolt
)	N A M.F.	Le Divide Meadow Grand Meadow Lone Pine Shelt Marble Mountain New Maddy River Oldman Pass Smith Greek Road Spencer Meadow Surprise Lakes Table Mountain	Cayuse Pass Obsapic Meadows Obsapic Meadows Obsapic Meadows Packwood Lake Packwood Hake Potacil Peak Potacil Hill		Ghost Forest Longmire Paradise Park	orem orace Corral Pass	Airstrip Charley Creek Cougar Mountain Grass Mountain	Grass Mountain Lester Creek Lynn Lake Sawmill Ridge Snowshoe Butte	Stampede Pa Nwin Camp City Cabin	Mt. Gardner Mt. Gardner Aux. Mt. Lindsay Mt. Washington Rex River South Fork Cedar Tinkham Creek	Alpine Meadow Oialiie Meadow South Fork Tol Lake Elizabeth
	× Z	Divide Grand N Lone Pi Marble New Mud Oldman Plains Smith C Spencer Spencer Surpris Table M	Cayuse Pass Mosquito Mead Ohanapecosh Packwood Lake Pigiail Peak Pigiail Peak Millame Creek		Ghost Fo Longmire Paradise	Corra	Airstrip Charley Cougar M Grass Moi	Grass Mour Lester Cr Lynn Lake Sawmill R Snowshoe		Mt. G Mt. G Mt. L Mt. H Mt. H Rex R South	Alpine Meadow Olallie Meadows South Fork Tolt Lake Elizabeth
2	· >	5310 5300 4300 1400 3400 5000		23 23 25	23 0 2 3 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0	220 220	252 24 00 00 00			999 0	0 9999
				4600 5370 4123 2200		3327 3935 5400 3875 3360			5700	3370 4030 4400	4800 2200 2500 4200
	KAN S	ued) 20N) 20E 20N) 20E 20N 20E 21N 19E 21N 20E 21N 20E 21N 20E 21N 20E 21N 20E			24N 14E 12N 13E 21N 19E 20N 19E 23N 12E 20N 14E				A G E  BN 40E	40E N 40E N 40E N 40E	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	200	E			28 24 20 31 20 21 22 23 23 23 23 23 23 23 23 23 23 15 20 15		22 22 20 12 23 20 12 23 13 14 13 13 13 13 13 13 13 13 13 13 13 13 13	- 11	7	N6 8 9N	2
	× 25.0.	m Creek 20825P 110 m Creek 20822 11 20833 12 ck Creek 2083 12 2084 18 r Creek 7 Creek 3080 34							DRA eek	m 2 11 11 23 M 23 Niver	n Rive 2 35 2 35 ver 2a 19 1 25 a 8 a 8
	N UMBY	River (conti 2085SP110 2085SP110 2082 2083 1 2083 1 2083 1 2084 Milf Greek 2088 34 2088 34 2088 36 2087 37 2088 37 2088 37 2088 37 2088 37 2088 37 2088 37 2088 37 2088 37 2088 37 2088 37 2088 37 2088 37 2088 37 37 37 37 37 37 37 37 37 37 37 37 37	Creek 1BB1m 1BB3m 1BB4m 1B85m 1885m 1887m 1BB6m na Rivel 21C11 21CB 21CB 21CS	21C3 20B9 20B9 20B1 21B4 21B4	21C10 20B11 20B12 21B46a 21B14M	21B4 20C1 21C1 20B1 20B1 20B1	20826a 20815 20815 21849a 21C28 21C27		Sotin Creek 17C4 Mill Creek	17C3m 17C1 ) 17C2M itat Ri 2001	Lewis River 21012 21012 21012 21021 21021 22013 21013 21018
		e ii	Crob Creek 1881m 1883m 1885m 1887m 1887m 1887m 1887m 21611 2161 2163 2163 2163				le) ike)		LOWER COLUMBIA DRAII Asotin Creek rings 1774 9 Mill Creek	Couse Homestead J7C1 Amrtin Springs (Helmers SN) 17C2M Klickitot River Satus Pass 2001 22	White Salmon Riv 21012 33 Lewis River 21022a 15 21021 28 22011 28
)		d t c					luner Avenue Van Epps Pass Walters Flat Waptus Lake White Pass (East Side) White Pass (Leach Lake)		ER C	(He 1me	
:		W Cree Cree Cree Cree Cree Cree Cree Cre	Creston-Kunz Jack Mods Krause Sheffels Sherman Wheatridge Ahtanum R. S. Big Boulder Greek Bumping Lake	idge Pass ek at	e k Elum	8 e &	enue Pass lat ke s (Eas		LOW	rings	Cultus Creek Blue Lake Bob's Trail Council Pass
	NAME	Trough #2 Colockum Gree Colockum Gree Colockum Greei Beehive Sprin, Scout-A-Vista Jump-Off Stemilt Slide Uppor Wheeler	Creston-kunz Jack Woods Krause Sheffels Sherman Wheatridge Ahtanum R. S Big Soulder ( Bunging Lake Sumping Lake	8umping Ridg Colockum Pas Cooke Creek Oomery Flat	Fish Lake Green Lake Grouse Camp High Creek Joe Lake Lake Cle Elum	Lemah Creek Manastash Morse Lake Nanum Trail Creek	lunnel Avenue Van Epps Pass Walters Flat Waptus Lake White Pass (E	- 1		se sstead in Spri us Pass	Cultus Creek Blue Lake Bob's Trail Calamity Rid Council Pass
		Trou Cold Cold Scoo Ster Uppe	Cres Jack Krau Sher Sher Sher Sher Sher Sher Sher Sher	Sump Colo Cool	Gree Grou Grou High Joe Lake	Lemah Manast Morse Nanum Trail	Van Wal Wap Whir		Spruce	Couse Homest Martin Satus	Cult Blue Bob Cal: Coun
,	> i	5250 5000 2970 1450 1450 3170 3150 2150	5370 5370 5370 5370 5370	5700 6000 4300 4000	4500 6750 2845 6400	7000 6500 7000 4650	6500 3540 5275 5900 2220	4780 4780 6300 6500	5425 1600 4540 3325 6800	6510 3540 3540 3540 6725 6200 3910 4900	3170 3240 4270 1810 1970 1127 2140 4070
	M A N C E	131 141 141 141 141 141 141 141 141 141		24E 24E 18E 24E	24E 23E 25E 25E	20E 18E 23E 23E	15E 16E 16E 16E 16E	10E 17E 17E 20E 1BE	18E 19E 17E 17E	18E 18E 18E 18E 19E 17E	15E 14E 17E 17E 17E 17E 16E 16E 19E
	SEC. TWP.	0 N N N N N N N N N N N N N N N N N N N		37N 37N 40N 40N 35N		39N 37N 40N 34N	31N 31N 31N 34N			30N 29N 29N 29N 30N 29N 30N 28N	26N 25N 22N 25N 25N 25N 26N 26N 26N 26N
	2 2 2 2	7 K - C - C - C - C - C - C - C - C - C -	88 i ver 19 34 34 34 34 34 34 34 34 34 34 34 34 34	30 19 a 32 18		15 15 36 36 36 36 36 36 36 36 36 36 36 36 36	a 18 a 19 a 19		34 19 34 28 28 28 28 28 28 28 28 28 28 28 28 28	15P 22 15P 22 23 34 7 20 5a 21 1a 10	S 7 7 35 13 35 35 14 4 4 4 4 4 4 5 12 12
	NUMBER	BIA DR 1116 Ri 17A2 17A1 17A3 17A3 18A2 18A2 18A3 18A8 18A4 18A6	1887 e Riv 1786 11889 1784 1785 118810 1 Rive 11881 11881 11881	1941 1944 20428a 1943P	19A2PM 19A10a 19A6 v Rive	20ASA 20ASA 19ASa 19A7	20A22a 20A25a 20A24a 20A24a 20A33a 20A13a	20A16a 20A16a 20A9 20A30A 20A31a		2082/a 20820 20824SP 20832a 20837 20837 20835a	21823 21841SP 2082 20816 20816 20817 20817 20818 2181 21845
		R COLUMBIA DRAIN Pend Orellle River 1733 30 1743 30 Kettle River 1833 86 1834 86 1838 5	Colville River 1785 1874 1775 1874 1775 1871 Okanogan River 1978 1978 1978 1978 1978 1978 1978 1978		19A2PM 19A10a 19A6 19A6 ethow River	200.292 200.504 200.504 190.504 190.705 190.70			ntiat	3	Wenatchee River 21823 (New) 21841SP 1 20815 20816 20817 20817 20817 20818 20817 20818 20818 20818
		Per Columbia Draina GE   Pend Orellie River tain   17A2   7 31N   Medow   17A3   30 35N   Greek   18A3   36 35N   K   18A4   26 33N   26 33	30	- ~	¥	4	)		ai 1	Pillo	Wenck (New) . 2 S.
		UPPE ntain Mead Creek Creek frail	5. eek Pa	ek No.	dows Mtn.	ch 8asin	Flat dows Flat	kidg bor Pass	dows er Tra	Klage Snow	Creel (SS No. (G. S. chee h R. (S
	NAME	UPPER O  Boyer Mountain  Bunchprass Meadow  Winchester Greek  Butte Greek  Gabin Greek  Goal Greek  Show Caps Treatl  Show Caps Treatl	Summit G. S. Buird Carlson Chewelah Togo Sherman Creek Pass Clark	Mutton Greek No. Paysayten Rusty Creek	Salmon Meadows Starvation Mtn. Touts Coulce	Dollar Watch Harts Pass Horseshoe Basin Loup Loup	Cloudy Pass Greenwood Flat Little Meadows Lyman Lake Park Creek Flat	Petersons Rainy Pass Safety Harbor War Creek Pass	Blue Creek G.S. Brief Entiat Meadows Entiat River Trail	Fox Camp Pope Ridge Pope Ridge Snow Pillow Pugh Ridge Snow Brushy Tommy Creek	Wence Will Creek Berne-Mill Creek Berne-Mill Creek (New) Blewert Pass No. 2 Chiwaukum G. S. Lake Wenarchee Leavenworth R. S. Merritt Stevens Pass Sand Shed Stevens Pass Sand Shed
		Boye Func Winc Minc Gaby Caby Cout Snow Snow	Summit Carlson Chewelah Stranger Togo Sherman Sherman Clark	Mutt Mutt Pays: Rust	Salm Star Tout	Doll Hart Hors Loup	Clou Gree Litt Lyman Park	Pete Rain Safe War	Blue Brie Enti Enti	Fox Pope Pope Pugh Shad Snow Tomm	Bern Blew Chiw Lake Leav Merr Stev Stev

### WATER SUPPLY OUTLOOK

### State of Washington May 1, 1977

\* The water supply has not improved one iota during the month of \* \* April. In fact, with the lack of snow and rainfall that has \* \* occurred over the state and the tributary areas, the situation \* \* has worsened from that which we previously reported. The only \* \* winter we have had to date was during the month of March, and the \* \* water supply forecasts are now similar to those which we reported \* \* as of the first of March. The snow packs have all been melting \* \* very rapidly this past month and the snow cover now ranges from a \* \* high of 49 percent of normal to a low of 7 percent. Many of the \* \* snow courses that normally have measureable amounts of snow as of \* \* May 1, are totally bare and only the highest elevation snow \* \* courses are reported to have any snow cover at all. Things are \* \* not nearly as bad in the northern portion of the Columbia Basin \* \* in British Columbia. Some snow packs in this area are near \* \* normal, but these only at isolated locations. The situation to \* \* the east and south of us is even worse than we have here. As a \* \* result of this poor snow cover and extreme lack of precipitation \* \* input during the month, water supply forecasts have all been \* \* reduced from that which was reported last month - some as much as \* \* 15 to 20 percent. The soil mantle is drying out - also due to \* \* this lack of input and the early growth of the vegetation on the \* \* land. Most irrigation reservoirs are in good shape, ranging from \* \* 56 to 101 percent of capacity, but the power reservoirs are all \* \* down and are in serious trouble with their refill schedule. 

### SNOW COVER

There has been a marked decrease in the amount of snow cover measured as of May 1 as compared to that on April 1. The Upper Columbia Basin tributaries show that the snow pack is now 27 percent of normal. This is 18 percent down from what was measured last month. The Lower Columbia snow courses are now 26 percent of normal - 19 percent down. The Puget-Olympic Peninsula Basins are now at 33 percent of normal, or down 17 percent from last months readings. The state, as a whole, now has a snow cover that is only 29 percent of normal. This is down from the 45 percent reported last month. In the Chelan Lake Basin only one snow course was measured this month and this one snow course, Rainy Pass, showed an increase, percentagewise, of 3 percent. This was the only increase in the state. It also is the highest drainage area, percentagewise, reported this month. The worse condition is in the southeastern portion of the state. Again, only one snow course had measureable amounts of snow and this snow course is reported to have only 7 percent of normal snow cover. The Yakima Basin, which appears to be getting most of the publicity and appears to have the greatest problem was measured by sixteen These courses indicate the snow pack to be only snow courses. 12 percent of average.

### RESERVOIRS

The five Yakima reservoirs are filled to 91 percent of capacity, or 22 percent greater than normal for this time of year. The power reservoirs are not in such good shape. Lake Roosevelt is filled to only 32 percent of capacity but this is 2 percent greater than normal. Lake Chelan is filled to 40 percent of capacity and this is 20 percent above average. West of the Cascades, Ross Reservoir is in serious trouble. It is only 38 percent full as of May 1, and is only 72 percent of average.

### PRECIPITATION

Rainfall during the month of April was less than 50 percent of normal over the state and tributary areas. The Columbia Basin in Canada was reported to have only 50 percent of normal rainfall; the Pend Oreille-Spokane, 21 percent; northeastern Washington, 14 percent; southeastern Washington, 16 percent; the central Washington area had precipitation that was only 28 percent of normal; and the northcentral, 44 percent. West of the Cascades, the north area had rainfall that was 52 percent of average while the southwestern slopes were only 39 percent of normal. April precipitation was slightly below the November through March winter period and considerably below that which occurred in March.

### STREAMFLOW

During the month of April, streamflow was generally pretty good. Two stations in the northwestern portion of the state were reported to have above normal runoff. These are the Skykomish and Skagit Rivers. All other stations had below normal runoff with the main stems being reported at near normal and smaller All water in the streams is tributaries at well below normal. being managed for the greatest benefit of the water users. Uncontrolled runoff is being diverted as much as possible for early irrigation and controlled runoff is being stored for later use, both for irrigation and power. An example of this is in the Yakima Drainage where the measured flow of the Lower Yakima River was only 5 percent of normal but the natural flow, taking into consideration storage and diversions, was 32 percent of average. Forecasts of streamflow have all been decreased from those previously issued. Percentagewise, the forecasts made as of March 1, before our winter snowfall, are essentially the forecasts that we are making today. Numerical forecasts can be found on the following pages.

### STREAMFLOW FORECASTS - MAY 1977

The following summarized runoff forecasts are based principally on mountain snow-cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. Streamflow figures for 1976 are preliminary and subject to revision.

		Seasona	al Streamf]	low in T	housand	ds of Ac	re-Feet
Basin, Stream	Forecast	%	Fore-				15-Yr
and	Runoff	15-Yr.	cast				Averag
Station	1977	Avg.	period	1976	1975	1974	58-72
	COLIIME	SIA BASIN					
	20110111	TH DADIN					
COLUMBIA RIVER SYSTEM							
Columbia River	28200	65	May-Sept	50657	39289	50569	43490
at Birchbank 1/	22800	66	May-July	35698	31132	40598	34632
_	13300	54	May-June	22773	20618	28011	24633
Columbia River	33600	54	May-Sept	73149	62331	78187	62110
at Grand Coulee 1/	29000	56	May-July	54890	51699	65816	51473
as szama ssazos <u>z</u> ,	18500	47	May-June	38731	37207	48544	39153
	10300	<del>4</del> 7	im, care	30,31	3,20,	10311	37133
Columbia River	37000	54	May-Sept	78541	68770	85652	67890
bl. Rock Island Dam 1/	30000	53	May-July	59584	57944	72754	56790
_	21200	49	May-June	42213	41976	53619	43202
Columbia River	43300	47	May-Sept	106435	98803	119450	91550
at The Dalles, OR 1/	35000	46	May-July	83524	84097	103189	76815
_	24000	40	May-June	62723	62915	78945	60083
PEND OREILLE RIVER SYSTEM							
Pend Oreille River	5400	39	May-Sept	15035	15807	18438	13740
bl. Box Canyon	5000	40	May-July	13376	14132	16990	12471
	3500	33	May-June	11084	10676	13619	10561
KETTLE RIVER SYSTEM							
Kettle River	890	55	May-Sept		1747	2330	1614
nr. Laurier	820	53	May-July		1665	2251	1534
	720	52	May-June		1479	1975	1381
Colville River	37	41	May-Sept		175	164	91
at Kettle Falls	31	39	May-July		153	147	80
	29	41	May-June		137	130	71

Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

		Seasona	al Streamflo	ow in Th	nousands	of Acr	
Basin, Stream	Forecast	% 15 v	Fore-				15-Yr.
and	Runoff	15-Yr.	cast	1076	1075	1074	Average
Station	1977	Avg.	period	1976	1975	1974	58-72
SPOKANE RIVER SYSTEM**	650	2.0	Mass Comb	2222	2042	2200	207.0
Spokane River	650	32	May-Sept	2223	2842	3389	2010
at Post Falls ID 2/	595	31	May-July May-June	2077 1892	2699 2457	3271 2998	1926
	545	30	May-June	1092	2457	2998	1800
OKANOGAN RIVER SYSTEM							
Similkameen River	590	41	May-Sept	1884	1398	2094	1425
nr. Nighthawk	555	42	May-July	1660	1303	1970	1333
	485	43	May-June	1274	1057	1588	1131
						•	
Okanogan River	645	40	May-Sept	2004	1464	2511	1587
nr. Tonasket	600	41	May-July	1654	1319	2288	1446
	522	43	May-June	1230	1063	1784	1213
METHOW RIVER SYSTEM							
Methow River	380	40	May-Sept		942	1517	946
nr. Pateros	310	35	May-July		862	1407	879
	240	32	May-June		678	1120	748
	210	32	iiu <sub>i</sub> saiis		0,0	1110	, 10
CHELAN RIVER SYSTEM							
Chelan River	575	50	May-Sept	1369	1289	1610	1139
at Chelan 3/	500	50	May-July	1091	1136	1369	999
_	375	48	May-June	731	784	963	767
Stehekin River	435	52	May-Sept		885	1153	830
at Stehekin	360	51	May-July		758	926	702
	260	49	May-June		488	648	526
Entiat	93	42	May-Sept		258	364	223
nr. Ardenvoir	84	41	May-July		233	323	204
	71	43	May-June		172	232	165
			-				
WENATCHEE RIVER SYSTEM							
Wenatchee River	600	52	May-Sept		1316	1750	1165
at Plain	550	53	May-July	•	1182	1492	1040
	430	53	May-June		844	1028	809
Wenatchee River	720	16	Mary-Cant	1060	1805	2333	1583
at Peshastin	730 670	46 47	May-Sept May-July	1960 1621	1623	2008	1426
at resilastiii	530	47	May-June	1021	1164	1409	1121
	330	** /	nay-oure	1007	TT04	1403	1171
Stemilt Basin	55	40	May-Sept	144*	134*	141*	138*
nr. Wenatchee							
Icicle Creek	205	55	Apr-Sept				371
nr. Leavenworth	170	50	Apr-July				342
	125	45	Apr-June				279

<sup>\*\*</sup> Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho.

<sup>\*</sup> Forecast in Thousands of Miners' Inches

<sup>2/</sup> Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.

<sup>3/</sup> Observed flow corrected for storage in Lake Chelan.

		Seasona	al Streamfl	ow in T	housand	s of Acı	ce-Feet
Basin, Stream	Forecast	8	Fore-				15-Yr.
and	Runoff	15-Yr.	cast				Average
Station	1977	Avg.	period	1976	1975	1974	58-72
YAKIMA RIVER SYSTEM							
Yakima River	46	40		104	156		
nr. Martin 4/	38	40	May-Sept	134	156	204	115
111. Harein 4/	37	36	May-July	121	142	187	104
	37	42	May-June	97	115	143	89
Yakima River	320	40	May-Sept		1020	1282	794
at Cle Elum 5/	270	38	May-July		920	1154	706
_	260	44	May-June		750	886	593
			1				
Yakima River	300	23	May-Sept		1947	2644	1328
nr. Parker 6/	290	22	May-July		1859	2521	1298
	270	23	May-June		1577	2030	1178
Kachess River	40	40	May-Sept	110	141	179	100
nr. Easton 7/	· 36	39	May-July	98	132	165	93
	32	40	May-June	76	107	128	81
Cle Elum River	200	48	May-Sept	506	506	676	410
nr. Roslyn 8/	180	49	May-July	428	459	595	371
	150	49	May-June	311	355	431	306
			1				
Bumping River	49	38	May-Sept	162	172	213	129
nr. Nile <u>9</u> /	45	38	May-July	138	155	190	118
	37	39	May-June	96	112	135	96
American River	45	40	Mara Gamb		1.43	105	110
nr. Nile	42	40 41	May-Sept		141	185	112
ur. wife	36	42	May-July		129	163	103
	30	42	May-June		96	119	85
Tieton River	85	39	May-Sept	274	277	360	214
at Tieton Dam 10/	70	39	May-July	211	232	292	178
<del></del>	60	43	May-June	146	166	211	139
Naches River	225	30	May-Sept		959	1237	748
nr. Naches 11/	190	28	May-July		856	1094	669
	170	30	May-June		666	846	557
Ahtanum Creek	11	28	May-Sept		50	68	39
nr. Tampico 12/	. 9	26	May-July		44	61	35
1127 141119100 127	. 8	27	May-June		37	49	30
			ray built		57	7.7	50

<sup>4/</sup> Observed flow corrected for storage in Lake Keechelus.

<sup>5/</sup> Observed flow corrected for storage in Keechelus, Kachess and Cle Elum Lakes and diversion by Kittitas Canal.

<sup>6/</sup> Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation and Sunnyside Canals.

<sup>7/</sup> Observed flow corrected for storage in Lake Kachess.

<sup>/</sup> Observed flow corrected for storage in Lake Cle Elum.

<sup>9/</sup> Observed flow corrected for storage in Bumping Lake.

<sup>10/</sup> Observed flow corrected for storage in Rimrock Lake.

<sup>11/</sup> Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapatox Canals and City of Yakima.

<sup>12/</sup> Observed flow of North and South Forks (Combined).

		Seasona	al Streamflo	ow in T	nousands	s of Acı	re-Feet
Basin, Stream	Forecast	9	Fore-				15-Yr.
and	Runoff	15-Yr.	cast				Average
Station	1977	Avg.	period	1976	1975	1974	58-72
LOWER COLUMBIA RIVER SYSTEM							
Mill Creek	9	50	May-Sept		30	39	18
nr. Walla Walla	6	42	May-July		25	33	14
	5	42	May-June		21	29	12
Lewis River	370	40	May-Sept	1001	969	1469	932
at Ariel 13/	290	38	May-July	829	804	1276	765
	240	37	May-June	680	666	1066	643
Cowlitz River	660	40	May-Sept		1894	2745	1650
Bl. Mayfield Dam	540	39	May-July		1619	2397	1391
	450	40	May-June		1218	1837	1123
Cowlitz River	890	42	May-Sept	2369	2314	3283	2108
at Castle Rock 14/	715	41	May-July	1889	1946	2849	1741
	600	43	May-June	1454	1484	2184	1407
	OLYMPIC P	ENINSULA					
DUNGENESS RIVER SYSTEM							
Dungeness River	97	65	May-Sept		139	187	147
nr. Sequim	72	60	May-July		108	145	119
	55	65	May-June		72	93	85
	PUGET	SOUND					
SKAGIT RIVER SYSTEM							
Skagit River at Newhalem 15/	960	47	May-Aug		2123	2759	2037
CEDAR RIVER SYSTEM							
Cedar River	50	55	Apr-Sept		101	145	91
at Cedar Falls							

<sup>13/</sup> Observed flow corrected for storage in Lake Merwin, Yale and Swift Reservoirs.

<sup>14/</sup> Observed flow corrected for storage in Mayfield Reservoir.

<sup>15/</sup> Observed flow corrected for storage in Diablo, Ross and Gorge Reservoirs.

Basin, Stream and Station	Forecast Runoff 1977	Seasona % 15-Yr. Avg.	Streamflo Fore- cast period	ow in Th	nousands	of Ac	15-Yr. Average 58-72
GREEN RIVER SYSTEM Green River Bl. Howard Hanson Dam	100 <u>16</u> /	46	May-Sept		293	372	220
ELWHA RIVER SYSTEM Elwha River nr. Port Angeles	290 235	63 63	May-Sept May-July		501 391	662 516	465 3 <b>7</b> 5

### COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about May 1, 1977 as percent of the same date in 1976 and 1975 and average of record.

	No. of	1977 Sn	ow Water 1	Expressed	
Tributary Basin	Courses	a	s percent	of	
	Average	1976	1975	1958-72 Avg.	
	TIDDED COL	IMDIA DACIN			
	OPPER COL	UMBIA BASIN			
Pend Oreille	18	27 .	19	26	
Kettle	18	28	26	30	
Spokane	10	26	22	26	
Okanogan	38	29	26	32	
Methow	7	23	17	26	
Chelan	1	36	44	49	
Entiat	10	15	18	22	
Wenatchee	10	17	14	22	
Yakima	16	26	24	12	
	LOWER	COLUMBIA			
Asotin Creek	1	6	5	7	
White Salmon	2	28	29	31	
Lewis	17	26	27	32	
Cowlitz	3	36	35	32	
,	PUGET	SOUND			
White	3	33	29	28	
Green	2	25	20	16	
Snoqualmie	1	28	24	33	
Skykomish	2	27	24	41	
Skagit	14	27	31	36	
Nooksack	1	37	42	_	
Baker	13	36	44	46	
	OLYMPIC	PENINSULA			
Elwha	1	25	30	32	
Dungeness	1	-	-	32	

RESERVOIR STORAGE - 1000 Acre Feet

BASIN OR		USABLE 1/		Meas	sured May	
STREAM	RESERVOIR	CAPACITY	1977	1976	1975	Normal*
		COLUMBIA				
Spokane	Coeur d'Alene Lake	225.1	179.3	236.7	204.2	253.2
Columbia	Franklin D. Roosevelt Lake	5232.0	1688.2	659.3	312.1	1654.6
Columbia	Banks Lake	714.9	464.3	597.3	550.7	457.7
Okanogan	Conconully Reservoir	13.0	7.4	11.3	11.0	11.2
Okanogan	Salmon Lake	10.5	9.3	9.8	9.5	7.8
Chelan	Lake Chelan	676.1	268.8	367.3	79.0	225.1
		YAKIMA				
Yakima	Keechelus Lake	157.8	118.5	104.5	99.5	121.2
Kachess	Kachess Lake	239.0	234.2	218.5	176.5	199.2
Cle Elum	Lake Cle Elum	436.9	441.3	307.3	276.6	310.9
Bumping	Bumping Lake	33.7	26.2	8.0	3.0	16.1
Tieton	Rimrock Lake	198.0	154.6	141.2	134.8	146.9
		PUGET SOUND				
Skagit	Ross Reservoir	1404.1	539.5	743.0	385.9	751.2
Skagit	Diablo Reservoir	90.6	86.8	87.1	86.9	85.7
Skagit	Gorge Reservoir	9.8	7.1	8.4	7.9	-

<sup>1/</sup> Based on Active Storage

<sup>\* 15-</sup>year Average 1958-72

### SOIL MOISTURE - MAY

		Profile	(Inches):	Soil Mo	oisture C	ontent
			Total :	(Inches	s) as of	May 1
Number	Elev.	Depth	Capacity :	1977	1976	1975
19A2M	4500	48	5.4	3.8	4.3	3.8
3-M	3600	48	7.3	3.5*	4.9*	-
21B20m	2200	48	6.9	_	_ ,	_
	2200		12.8	_	_	_
17C3m	3650	48	11.1	6.4	_	_
17C2M	4400	48	12.0	10.1	-	-
20B7M	4400	48	12.7	8.0	15.2	12.4
	19A2M 3-M 21B2Om 21B14M 17C3m 17C2M	19A2M 4500 3-M 3600 21B20m 2200 21B14M 2200 17C3m 3650 17C2M 4400	19A2M 4500 48 3-M 3600 48  21B20m 2200 48 21B14M 2200 48  17C3m 3650 48 17C2M 4400 48	Number         Elev.         Depth         Total : Capacity :           19A2M         4500         48         5.4           3-M         3600         48         7.3           21B20m         2200         48         6.9           21B14M         2200         48         12.8           17C3m         3650         48         11.1           17C2M         4400         48         12.0	Number         Elev.         Depth         Capacity : 1977           19A2M         4500         48         5.4         3.8           3-M         3600         48         7.3         3.5*           21B20m         2200         48         6.9         -           21B14M         2200         48         12.8         -           17C3m         3650         48         11.1         6.4           17C2M         4400         48         12.0         10.1	Number         Elev.         Depth         Total : (Inches) as of Lapacity : 1977         1976           19A2M

<sup>\*</sup> April 1 Measurement

### FALL SOIL MOISTURE

Drainage Basin			Profile	(Inches):	Soil Mo	oisture Co	ontent
and				Total :	(Inches	s) as of (	Oct. 1
Station	Number	Elev.	Depth	Capacity:	1976	1975	1974
OKANOGAN							
Salmon Meadows	19A02M	4500	48	5.4	3.4	3.2	1.8
Trout Creek	3-M	3600	48	7.3	3.4	3.1	3.0
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	_	-
Lake Cle Elum	21B14M	2200	48	12.8	_	_	-
WALLA WALLA							
Couse	17C3m	3650	48	11.1	-	7.3	-
Helmers	17C2M	4400	48	12.0	_	6.5	-
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	_	8.6	5.4
<u> </u>							

 $\begin{array}{c} & \text{PRECIPITATION } \underline{1}/\\ \\ \text{Division Average Observations and Departures} \end{array}$ 

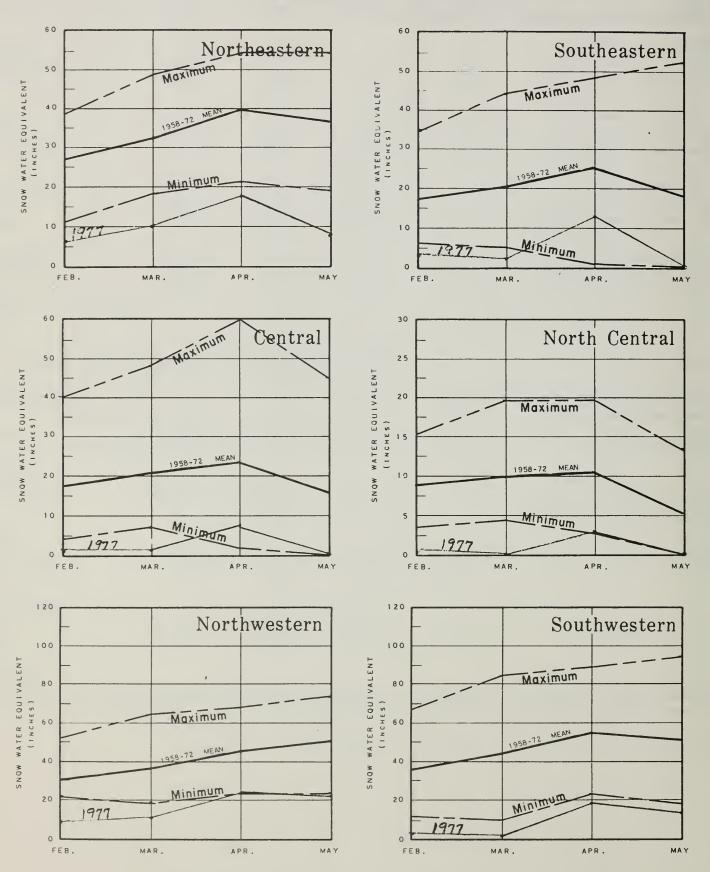
	FAI	LL	WTN	NTER	SPRING		
Drainage	Sept-Oct	1976 2/		Mar. 1977	April		
Divisions	Observed	Departure		Departure	Observed		
Columbia in Canada	3.10	- 1.92	8.92	- 6.59	0.85	-0.86	
Pend Oreille - Spokane	1.54	- 2.50	8.23	- 9.32	0.39	-1.43	
Northeastern Washington	0.87	- 1.60	3.80	- 5.60	0.18	-1.08	
Southeastern Washington	1.45	- 1.06	4.28	- 6.15	0.24	-1.29	
Central Washington	1.24	- 3.51	11.28	-16.25	0.62	-1.57	
North Central Washington	0.61	- 0.98	3.26	- 3.28	0.38	-1.47	
Northwest Slope Cascades	6.65	- 6.56	35.21	-20.18	3.43	-3.21	
Southwest Slope Cascades	4.30	- 4.37	18.34	-23.30	1.78	-2.84	
1155							
Northeastern Washington			Spokane, Co Drainages.	olville, San	poil and I	Lower	
Southeastern Washington		- Touche	t, Tucannor	n and Palous	e Drainage	es.	
Central Washington		- Yakima	, Wenatchee	e and Chelan	Drainages	5.	
North Central Washington		- Methow	and Okanog	gan Drainage	s.		
Northwest Slope Cascades		- Puget	Sound Drain	nages.			
Southwest Slope Cascades		- Lower	Columbia Dr	rainages.			

<sup>1/ -</sup> Preliminary analysis by National Weather Service from data furnished by Meteorlogical Services of Canada and the National Weather Service.

<sup>2/ -</sup> Departure from 15-year (1958-72) drainage division average.

### WASHINGTON SNOW COVER

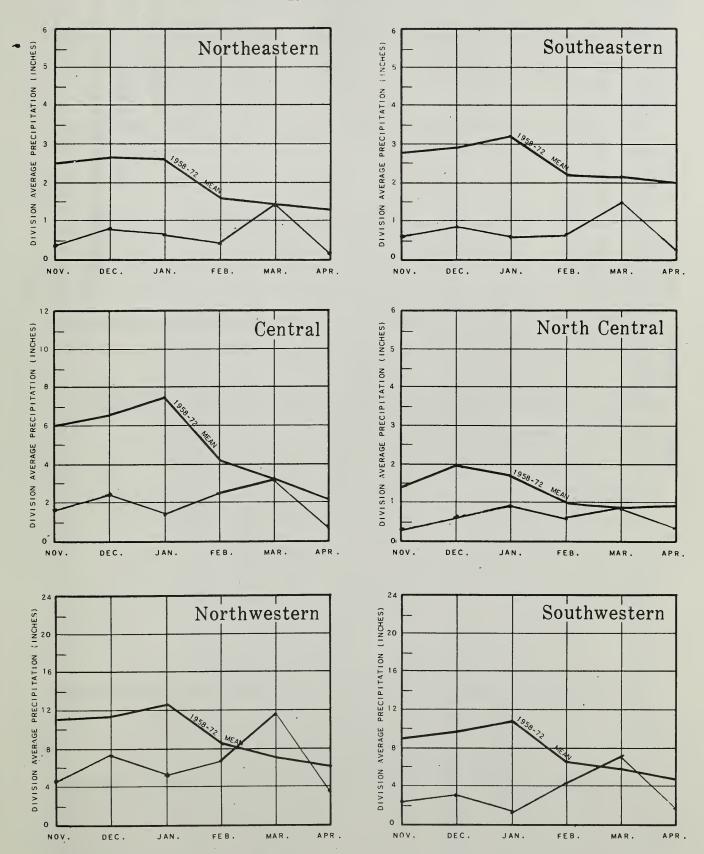
### DRAINAGE AREAS

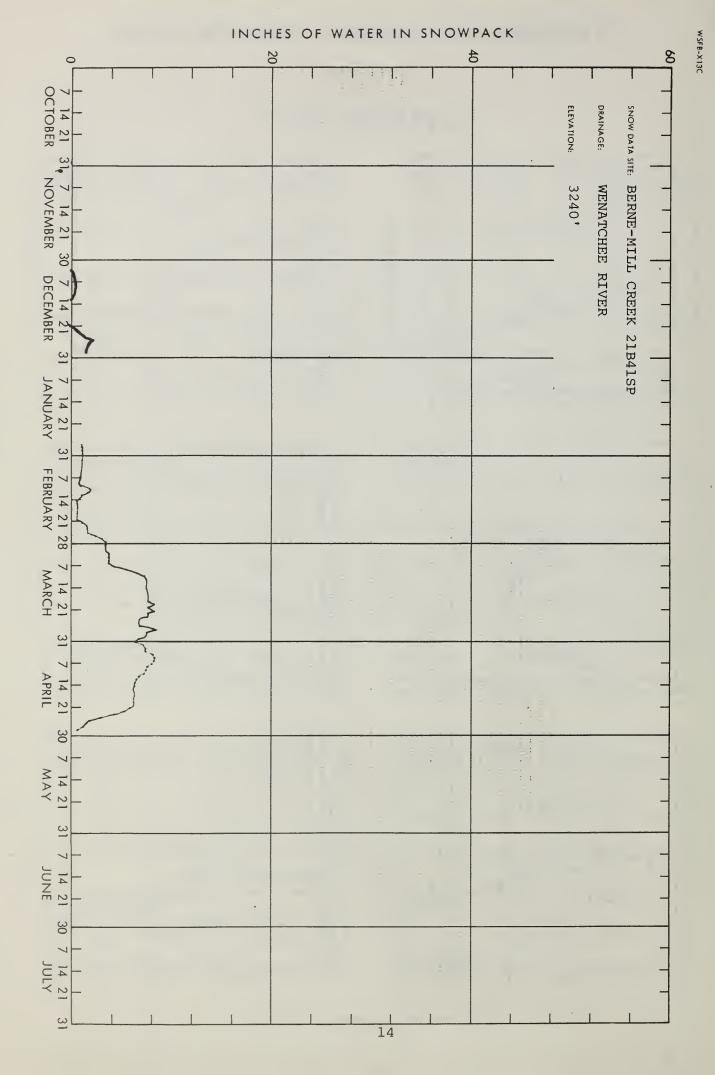


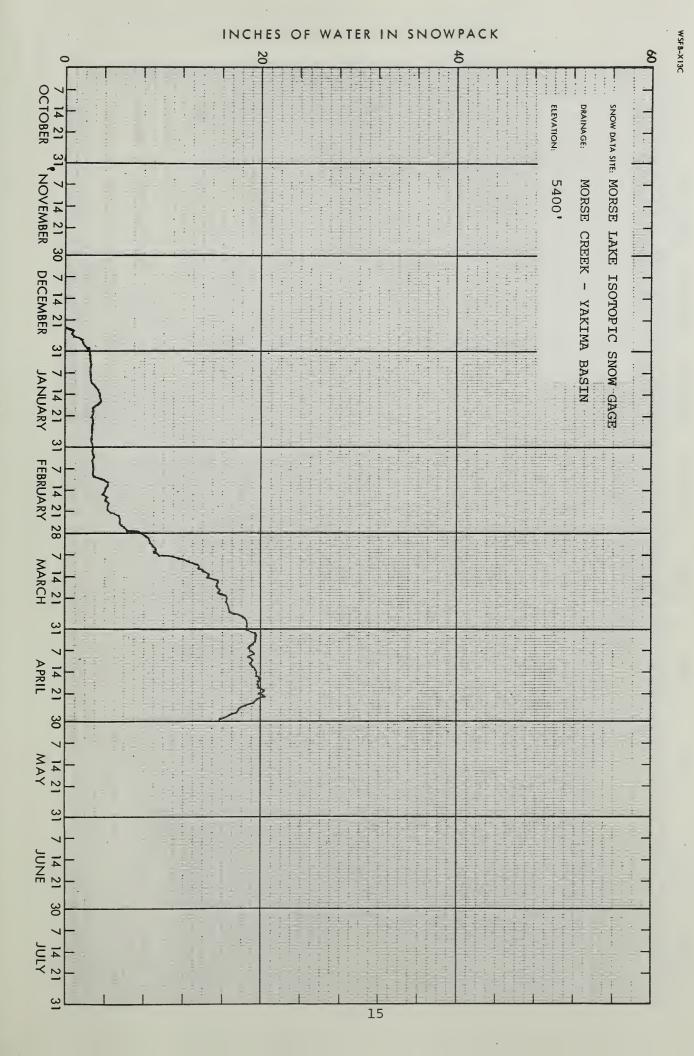
### WASHINGTON VALLEY PRECIPITATION

1976-1977

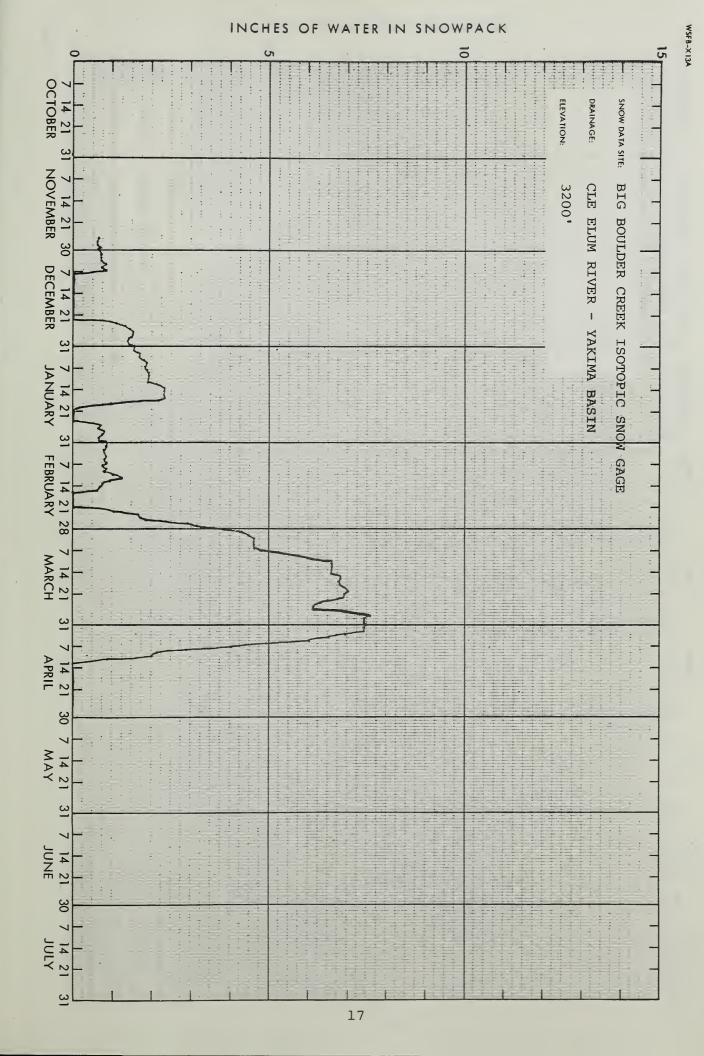
### DRAINAGE AREAS

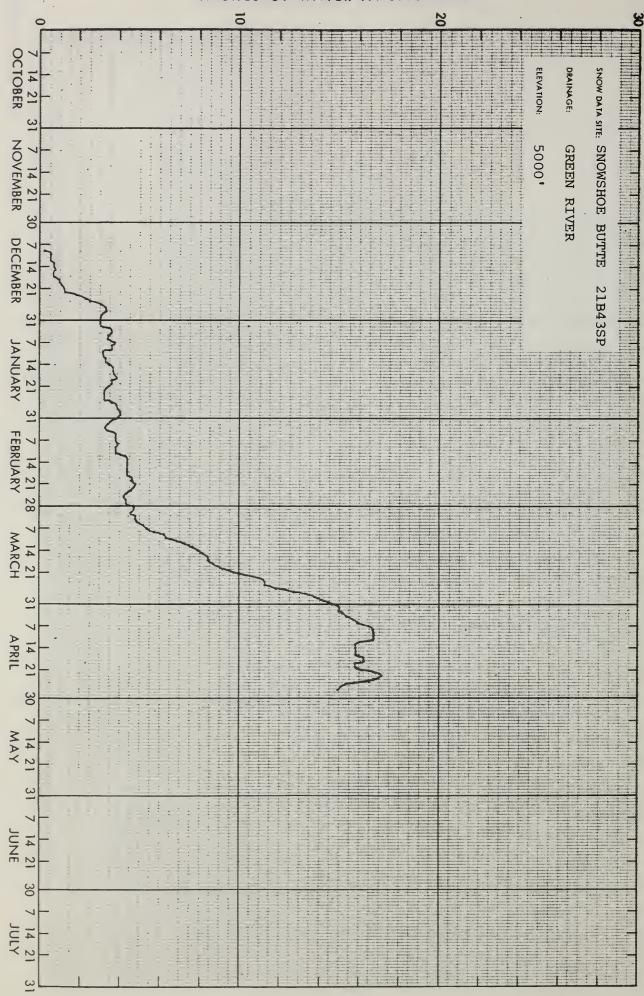


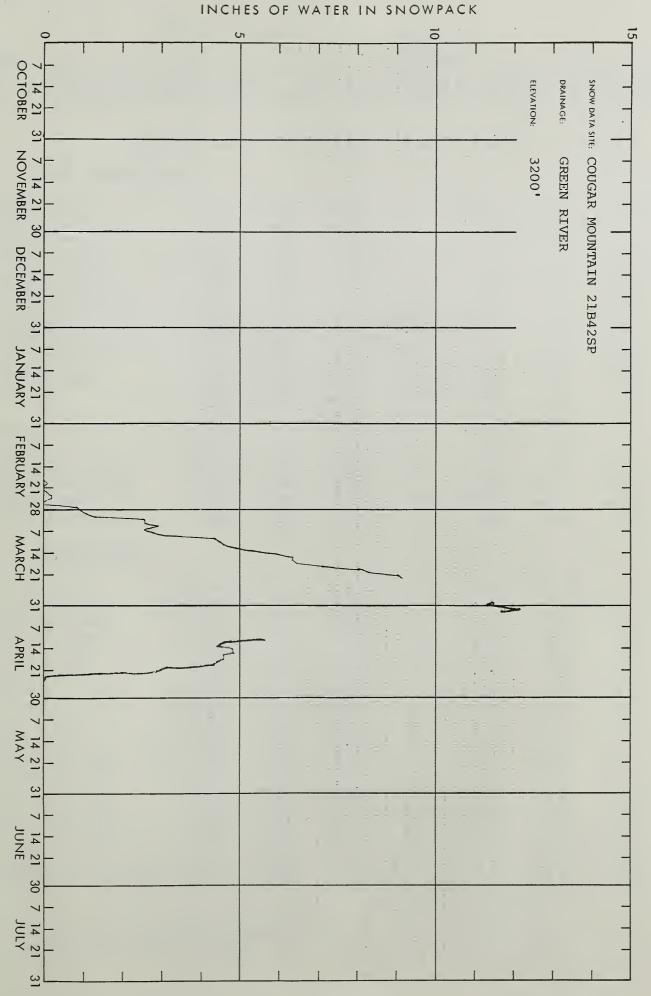




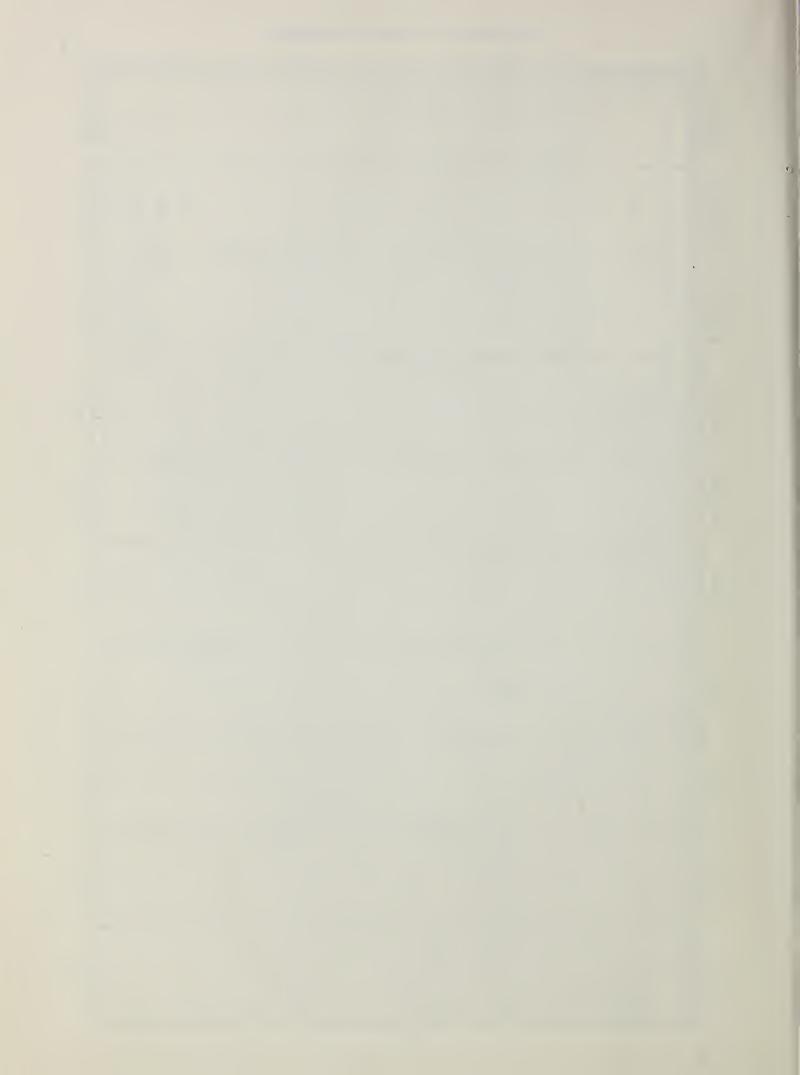
WSFB-X13C







WSFB-X13A



SNOW		THIS YEAR		PAST R	ECORD
DRAINAGE BASIN and/or SNOW COURSE	Date	Snow Depth	Water Content	Water Conte	ent (inches)
NAME Number Elevation	of Survey	(inches)	(Inches)	Last Year	Average #

### UPPER COLUMBIA DRAINAGE

### PEND OREILLE RIVER

Baree Creek	15B11	5500	4/28	39	18.6	56.2	49.6
Baree Midway	15B11	4600	4/28	30	11.7	37.1	35.1
Baree Trail	15B15	3800	4/28	0	0.0	0.3	1.2
Benton Meadow	16A02	2344	4/27	0	0.0	0.0	0.0
Benton Spring	16A02	4900	4/27	0	0.0	14.5	15.7
Boyer Mountain	17A02	5250	4/28	5.4	2.1	22.2	26.6
Brush Creek Timber	14A13	5000	4/28	0	0.0	8.1	8.2
Bunchgrass Meadow	17A01	5000	4/27	18	6.5	27.5	30.4
Heart Lake Trail	14C10	4800	4/28	10	3.3	20.9	19.0
Hoodoo Basin	15C10	6000	4/28	48	20.6	64.8	55.2
Hoodoo Creek	15C10	5900	4/28	42	18.4	56.4	52.2
Lookout	15E01 15B02	5250	4/14	42	15.3	37.5	J2.2 -
LOOKOUC	13602	3230	4/14	23	8.3	38.2	37.7
Mosquito Ridge	16A04A	5100	4/28	12	4.3	-	37.7
Nelson	19-Can	3050	4/28	4	1.5	7.5	7.7 *
Schweitzer Bowl	16A06	4500	4/29	0	0.0	-	26.6
Schweitzer Ridge	16A05	6100	4/29	31	14.5	_	50.6
Smith Creek		4800	4/29	37	15.2	43.2	47.9
	16A01	2970	4/28	0		0.0	1.6
Winchester Creek	17A03	2970	4/28	U	0.0	0.0	1.0
REMARK IN DECEMB							
KETTLE RIVER							
Barnes Creek	90-Can	5300	4/28	37	14.0	25.3	21.7*
Big White Mtn.	154-Can	5500	4/28	28	10.3	26.7	22.8*
Bluejoint Mtn.	244-Can	7500	4/28	30	11.3	_	43.1*
Boulder Road	18A02	1450	4/29	0	0.0	0.0	0.0
Butte Creek	18A03	4070	4/29	0	0.0	7.9	5.9
Cabin Creek	18A08	3170	4/29	0	.0.0	2.5	1.5
Carmi	126-Can	4100	4/28	0	0.0	5.5	2.2*
Farron # 1	17-Can	4000	4/29	4	1.2	12.7	8.8*
Farron # 2	243-Can	4000	5/2	3	0.9	12.3	12.5*
Goat Creek	18A04	3595	4/29	0	0.0	0.0	0.0
Graystoke Lake	5-Can	5950	4/28	22	10.0	20.5	26.4*
Monashee Pass	48A-Can	4500	4/28	22	8.0	16.2	13.5*
Old Glory Mtn.	42-Can	7000	4/30	15	5.5	33.6	31.9*
Snow Caps Creek	18A05	2150	4/29	0		0.0	0.0
Snow Caps Trail	18A06	2720	4/29	0	0.0	0.0	0.0
Summit G. S.	18A07	4600	4/29	0	0.0	6.6	6.0
Trapping Creek Lower		3050	4/28	0	0.0	0.0	0.0*
Trapping Creek Upper		4450	4/28	0	0.0	10.0	7.2*
rraphrud creek obber	105 Carl	4400	4/20		0.0	10.0	7 • 2

<sup>#</sup> Average based on 1958-72 average

USDA-SCS-PORTLAND OREGON 1873

<sup>\*</sup> Average for years of record

SNOW				THIS YEAR		PAST RECORD	
DRAINAGE BASIN and/o	SNOW COURSE		Date of Survey	Snow Depth	Water Content	Water Cont	ent (inches)
NAME	Number	Elevation	or survey	(Inches)	(Inches)	Last Year	Average #
SPOKANE RIVER							
Above Burke	15B08	4100	4/28	13	4.7	25.9	_
Copper Ridge	16B02	4800	4/25	0	0.0	28.5	27.3
Forty-nine Meadows	15B03	5000	4/27	15	4.0	27.4	30.3
Fourth of July Summi	t 16B03	3100	4/28	0	0.0	3.1	-
Granite Peak	15B13A	6000	4/27	47	15.5	44.0	48.3
Kellogg Peak	16B05A	5560	4/28	0	0.0	_	-
Lookout	15B02	5250	4/14	42	15.3	37.5	-
			4/28	23	8.3	38.2	37.7
Lost Lake	15B14A	6000	4/27	52	19.3	59.2	62.0
Lower Sands Creek	16B01	3400	4/25	20	7.3	19.2	16.0
Medicine Ridge	15B04A	6150	4/27	47	16.2	46.8	51.5
Mosquito Ridge	16A04A	5110	4/28	12	4.3	_	-
Roland Summit	15B05A	5200	4/28	0	0.0	<b>-</b> ,	_
Sunset	15B09A	5600	4/28	18	6.5	-	
OKANOGAN RIVER							
Aberdeen Lake	6A-Can	4300	5/1	0	0.0	2.6	1.9*
Blackwall Mountain	100-Can	6250	4/28	41	15.4	50.8	39.7*
Bouleau Creek	31-Can	5000	Not Mea		_	_	8.7*
Bouleau Lake	234-Can	4580	4/30	17	5.7	17.2	16.3*
Brenda Mine	193-Can	4800	4/29	0	0.0	12.2	11.9*
Brookmere	27-Can	3200	4/25	5	1.2	3.9	6.0*
Carrs Landing Upper	168-Can	3200	5/1	0	0.0	0.0	0.0*
Enderby	130-Can	6250	4/27	<b>7</b> 7	29.9	46.1	44.4*
Esperon Creek Lower	164-Can	4400	4/29	0	0.0	10.5	12.1*
Esperon Creek Middle	163-Can	4700	4/29	0	0.0	14.5	15.8*
Esperon Creek Upper	162-Can	5400	4/29	16	4.7	19.1	22.6*
Freezeout Meadows Ne	w 20A38	5000	4/25	36	14.3	43.9	31.0
Graystoke Lake	5-Can	5950	4/28	22	10.0	20.5	26.4*
Hamilton Hill	107-Can	4900	4/28	16	4.6	17.9	13.7*
Harts Pass	20A05A	6500	4/25	53	21.8	65.9	50.7
Isintok Lake	152-Can	5510	5/1	0	0.0	8.2	8.1*
Lost Horse Mountain	105-Can	6300	4/29	14	3.8	12.2	11.3*
Loup Loup	19A07	4650	4/25	0	0.0	1.8	-
McCulloch	4-Can	4200	4/28	0	0.0	3.2	3.0*
Missezula Mountain	106-Can	5100	4/29	0	0.0	9.1	5.8*
Mission Creek	5A-Can	6000	4/28	39	14.7	25.9	22.3*
Monashee Pass	48A-Can	4500	4/28	22	8.0	16.2	13.5*
Mount Kobau	156-Can	5950	4/29	6	2.1	11.4	14.9*
Mutton Creek No. 1	19A01	5700	4/27	0	0.0	6.5	10.9
Mutton Creek No. 2	19A04	6000	4/27	0	0.0	9.6	15.5
Mutton Creek No. 2SP	19AllSP	6000	4/27	_	0.0	8.6	-

<sup>#</sup> Average based on 1958-72 average

<sup>\*</sup> Average for years of record

NOW			THIS YEAR	Y	PAST R	ECORD
DRAINAGE BASIN and/or SNOW COURSE		Date	Snow Depth	Water Content	Water Conte	ent (inches)
NAME	Number Elevation	of Survey	(Inches)	(Inches)	Last Year	Average
OKANOGAN RIVER (Cont	- \					
ORANOGAN KIVEK (COM	<u></u> )					
New Copper Mountain 46A-	-Can 4300	4/27	0	0.0	0.0	2.1*
New Penticton Res.#2 183-	-Can 5225	4/29	5	1.4	9.2	11.5*
Nickel Plate Mtn. 47-	-Can 6200	4/30	9	2.6	10.6	8.3*
Oyama Lake 203-	-Can 4400	5/3	0 -	0.0	2.1	4.6*
Postill Lake 55-	-Can 4500	4/29	8	2.7	8.0	7.1*
Quartette Lake 34-	-Can 4000	4/27	14	4.1	19.1	13.5*
Rusty Creek 19	9A03 4000	4/27	0	0.0	0.0	0.6
Salmon Meadows 19	9A02 4500	4/27	0	0.0	1.7	5.4
Silver Star Mountain 99-	-Can 6050	4/30	37	14.7	37.2	29.1*
Summerland Reservoir 3A-	-Can 4200	4/30	0	0.0	8.1	7.6*
Touts Coulee 19	9A06 2845	4/25	0	0.0	-	-
Trout Creek 3-	-Can 4700	4/28	0	0.0	8.0	5.5*
Vaseux Creek 233-	-Can 4600	4/29	0	0.0	4.0	3.3*
White Rocks Mountain 70-	-Can 6000	4/28	18	6.9	25.0	32.0*
METHOW RIVER						
Harts Pass 201	A05A 6500	4/25	53	21.8	65.9	50.7
	9A07 4650	4/25	0	0.0	1.8	_
	9A01 5700	4/27	0	0.0	6.5	10.9
	9A04 6000	4/27	0	0.0	9.6	15.6
	9All 6000	4/27	_	0.0	8.6	_
	9A03 4000	4/27	0	0.0	0.0	0.6
	9A02 4500	4/27	0	0.0	1.7	5.4
CHELAN LAKE BASIN						
Park Creek Ridge 202	Al2A 4600	5/3	_	5.8	_	_
2	A12A 4600 A09 4780	4/25	54	21.8	60.2	44.3
Marily Fass 20	JAU J 4/00	4/25	54	21.0	00.2	44.0
ENTIAT RIVER				·		
Blue Creek G. S. 201	328a 5425	4/25	36	11.9	59.2	New
	A33a 4540	4/25	30	9.9	66.7	41.0
	A34a 3325	4/25	0	0.0	22.0	9.7
	327a 6800	4/25	12	4.0	52.2	-
_	A36a 6510	4/25	59	19.5	79.0	63.5
_	DB20 3540	4/26	0	0.0	11.0	8.2
	A32a 6725	4/25	34	11.2	51.2	38.7
	)A37 6200	4/27	6.6	2.2	41.7	-
_	A35a 3910	4/25	21	6.9	23.2	30.8
	321a 4900	4/25	0	0.0	30.1	22.5
Zonany Creek   Zon	7500	1, 23			2001	

<sup>#</sup> Average based on 1958-72 average

<sup>\*</sup> Average for years of record

<sup>+</sup> Snow water equivalent estimated from aerial stadia observation.

OW				THIS YEAR			ECORD
DRAINAGE BASIN and/or SNO	OW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)		ent (inches)
NAME	Number	Elevation	01 30114	(menes)	(menes)	Lest Yeer	Average
WENATCHEE RIVER							
erne-Mill Creek	21B23	2925	4/28	11	6.0	29.0	21.1
erne-Mill Creek New 2	21B41SP	3240	4/28	0	0.0	20.0	17.7
lewett Pass No. 2	20B02	4270	4/12	4.1	2.2	17.4	13.0
			4/27	О т	0.0	16.2	9.5
hiwaukum G. S.	20B16	1810	4/28	0	0.0	0.0	.1.8
ish Lake	21B04	3371	4/26	5	2.0	40.8	26.7
ake Wenatchee	20B05	1970	4/28	0	0.0	8.0	1.6
eavenworth R. S.	20B17	1127	5/1	0	0.0	0.0	0.0
erritt	20B18	2140	4/28	0	0.0	11.2	3.8
tevens Pass	21B01	4070	4/14	65	25.6	59.3	55.2
	Ť		4/28	49	22.9	63.3	55.8
tevens Pass Sand Shed	l 21B45	3700	4/13	32	12.2	42.9	-
			4/28	14	7.6	42.3	-
SQUILCHUCK CREEK							
eehive Springs	20B03	4400	4/28	0	0.0	0.0	1.7
cout-A-Vista	20B03	3400	4/28	0	0.0	0.0	0.4
STEMILT CREEK							
ump-Off	20B08	4450	4/28	0	0.0	2.0	2.8
temilt Slide	20B06	5000	4/28	0	0.0	8.0	7.1
pper Wheeler	20B07	4400	4/28	0	0.0	0.0	1.0
COLOCKUM CREEK			v.				
olockum Creek Upper	20B22	5300	4/28	0	0.0	4.5	_
olockum Creek Lower	20B23	4300	4/28	0	0.0	0.0	_
	0B25SP	5310	4/28	0	.0.0	4.3	-
YAKIMA RIVER							
ig Boulder Creek	21B09	3200	4/26	0	0.0	17.0	7.4
lewett Pass No. 2	20B02	4270	4/12	4.1	2.2	17.4	13.0
			4/27		0.0	16.2	9.5
umping Lake	21C08	3450	4/15	0	0.0	15.2	13.4
			5/2	0	0.0	11.4	9.4
umping Lake New	21C36	3400	4/15	0	0.0	21.4	_
	22000	3.30	5/2	0	0.0	18.5	15.0
			-				
avuse Pass	21006	5300	4/26	88	43.4	108.6	_
ayuse Pass Corral Pass	21C06 21B13	5300 6000	4/26 4/26	88 39	43.4 15.6	108.6 53.9	_

<sup>#</sup> Average based on 1958-72 average

NOW				THIS YEAR			ECORD
DRAINAGE BASIN and/or S	NOW COURSE		Date Snow Depth of Survey (Inches)		Water Content		ent (inches)
NAME	Number	Elevation	of Survey	(inches)	(Inches)	Last Year	Average #
YAKIMA RIVER (Co	ont.)						
Joe Lake +	41B46a	4624	4/26	93	40.0	94.6	_
Lake Cle Elum	21B14M	2200	4/15	0	0.0	6.3	-
			4/29	0	0.0	0.0	0.0
Lemah Creek +	21B47a	3327	4/26	36	14.0	35.2	-
Morse Lake	21C17	5400	5/1	41	18.0	59.5	65.1
Olallie Meadows	21B02	3625	4/14	51	20.2	55.6	48.4
			4/25	35	15.9	57.1	48.6
Stampede Pass SP	21B10	3860	4/15	-	12.0	42.6	43.4
			5/1	-	6.9	36.6	43.4
Tunnel Avenue	21B08	2450	4/15	0	0.0	29.6	20.1
			4/29	0	0.0	24.6	16.0
Van Epps Pass +	20B26a	5925	4/26	56	21.8	63.0	-
Waptus Lake +	21B49a	3024	4/26	33	12.9	33.3	-
White Pass (E. Side)	21C28	4500	4/15	17	6.3	28.9	26.0
			5/1	0	0.0	29.7	25.9
L O W	ER C	DLUME	3 I A	DRAII	NAGE		
ASOTIN CREEK							
Spruce Springs	17C04	5700	4/25	4.4	1.8	29.5	25.8
MILL CREEK							
<b>T</b> ollgate	18D3M	5070	4/28	0	0.0	33.6	18.9
WHITE SALMON RIV	ŒR						
•	<del></del>			,			
Cultus Creek	21C12	4000	4/25	42	18.3	53.6	48.9
Surprise Lakes	21C13A	4250	4/25	29	13.2	56.3	52.9
WIND RIVER							
Old Man Pass	21D19	3100	4/25	0	0.0	22.6	12.6
LEWIS RIVER							
Blue Lake +	21C22a	4800	4/25	85	39.1	106.5	92.4
Bob's Trail	21C21	2200	4/25	0	0.0	18.7	7.8
Clamity Ridge +	22D01a	2500	4/25	0	0.0	8.0	1.3
Council Pass +	21C18a	4200	4/25	30	13.5	54.0	38.8
Cultus Creek	21C12	4000	4/25	42	18.3	53.6	48.9
Divide Meadow +	21C29a	5600	4/25	48	21.6	77.4	65.5
			-, -0				00.0

<sup>#</sup> Average based on 1958-72 average

<sup>+</sup> Snow water equivalent estimated from aerial stadia observation

SNOW				THIS YEAR		PAST RECORD		
DRAINAGE BASIN and/or S	SNOW COURSE		Date	Snow Depth	Water Content	Water Cont	ent (inches)	
NAME	Number	Elevation	of Survey	(Inches)	(Inches)	Last Year	Average 1#	
LEWIS RIVER (Con	nt.)							
Grand Meadow	21C25	3500	4/25	0	0.0	26.7	22.4	
Lone Pine Shelter	21C26	3800	4/25	38	15.9	56.9	46.3	
Marble Mountain +	22C05a	3200	4/25	10	4.9	42.2	33.2	
New Muddy River	22C06	2000	4/25	Ο,	0.0	2.0	0.8	
Old Man Pass	21D19	3100	4/25	0	0.0	22.6	12.6	
Plains of Abraham +	22C01a	4400	4/25	<b>7</b> 0	32.9	73.6	76.9	
Smith Creek Road	22C04	2100	4/25	0	0.0	4.2	5.3	
Spencer Meadow +	21C20a	3400	4/25	12	5.4	27.3	16.1	
Surprise Lakes	21C13A	4250	4/25	29	13.2	56.3	52.9	
Table Mountain +	21C24a	4200	4/25	36	16.2	59.4	40.3	
Timbered Peak +	21D18a	3000	4/25	4	1.8	23.4	9.9	
COWLITZ RIVER								
Cayuse Pass	21C06	5300	4/26	88	43.4	108.6	_	
Plains of Abraham +	22C01a	4400	4/25	70	32.9	73.6	76.9	
White Pass (E. Side)	21C28	4500	4/15	17	6.3	28.9	26.0	
,			5/1	0	0.0	29.7	25.9	
WHITE RIVER								
Cayuse Pass	21C06	5300	4/26	88	43.4	108.6	-	
Corral Pass	21B13	6000	4/26	39	15.6	53.9	-	
Morse Lake	21C17	5400	4/29	41	18.0	59.5	65.1	
GREEN RIVER								
Snowshoe Butte SP	21B43SP	5000	4/27	48 .	21.1	68.9	-	
Stampede Pass SP	21B10	3860	4/15	-	12.0	42.6	43.4	
			5/1	-	6.9	36.6	43.4	
SNOQUALMIE RIVE	<u>R</u>							
Olallie Meadows	21B02	3625	4/14	51	20.2	55.6	48.4	
			4/25		15.9		48.6	
SKYKOMISH RIVER								
Stevens Pass	21B01	4070	4/14	65	25.6	59.3	55.2	
	22201	10,0	4/28	49	22.9		55.8	
Stevens Pass Sand She	ed 21R45	3700	4/13	32	12.2		-	
· · · · · · · · · · · · · · · · · · ·	21043	3,00	4/28	14	7.6		_	
			1,20	17	,.0	12.5		

<sup>#</sup> Average based on 1958-72 average

<sup>+</sup> Snow water equivalent estimated from aerial stadia observation.

DRAINAGE BASIN and/or SNOW COURSE				THIS YEAR	PAST RECORD		
			Date	Snow Depth	Water Content	Water Cont	ent (inches)
NAME	Number	Elevation	of Survey	(Inches)	(inches)	Last Year	Average
SKAGIT RIVER							
Beaver Creek Trail	21A04	2200	4/25	0	0.0	16.7	4.8
Beaver Pass	21A01	3680	4/25	16	6.6	42.0	34.0
Brown Top	21A28a	6000	4/25	74	31.0	96.6	-
Devils Park	20A04A	5900	4/25	52	22.1	69.0	49.5
Freezeout Cr. Trail	20A01	3500	4/25	0.9	0.4	14.9	8.2
Freezeout Meadows New	w 20A38	5000	4/25	36	14.3	43.9	31.0
Granite Creek	21A29	3500	4/25	6.4	2.4	24.6	-
Harts Pass	20A05A	6500	4/25	53	21.8	65.9	50.7
Klesilkwa	35B-Can	3700	4/27	0	0.0	-	12.8
Meadow Cabins	20A08	1900	4/25	0	0.0	4.2	1.3
New Hozomeen Lake	21A30	2800	4/25	0	0.0	13.7	-
New Tashme	26A-Can	2500	4/29	0	0.0	4.0	5.7
Quartette Lake	34-Can	4000	4/27	14	4.1	19.1	13.5
Rainy Pass	20A09	4780	4/25	54	21.8	60.2	44.3
Thunder Basin	20A07	4200	4/25	28	10.5	28.5	25.5
BAKER RIVER							
Baker Pass +	21A27a	4900	4/27	108	45.4	119.0	-
Dock Butte	21A11A	3800	4/26	82	35.0	101.6	77.4
Easy Pass	21A07A	5200	4/27	100	42.2	123.0	93.3
Jasper Pass	21A06A	5400	4/27	114	48.9	126.8	102.7
Komo Kulshan	21A17	800	4/26	0	0.0	0.0	0.7
Marten Lake	21A09A	3600	4/27	104	43.7	114.0	83.8
Mount Blum +	21A18a	5800	4/27	96	40.3	94.6	-
Panorama New	21A26	4300	4/15	100	36.3	85.1	-
			5/1	73	35.2	95.7	-
Rocky Creek	21A12A	2100	4/26	20	8.8	49.0	22.6
Schreibers Meadow	21A10A	3400	4/26	79	32.4	86.2	67.5
S. F. Thunder Creek	21A14A	2200	4/26	0	0.0	8.0	1.1
Sulphur Creek	21A13	1600	4/26	0	-0.0	20.9	6.4
Three Mile Creek	21A15	1600	4/26	0	0.0	0.0	0.0
Watson Lakes	21A08A	4500	4/26	87	35.7	92.0	76.9
NOOKSACK RIVER							
Panorama New	21A26	4300	4/15	100	36.3	85.1	-
			5/1	73	35.2	95.7	-

<sup>#</sup> Average based on 1958-72 average

<sup>\*</sup> Average for years of record

<sup>+</sup> Snow water equivalent estimated from aerial stadia observation.

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SN	DRAINAGE BASIN and/or SNOW COURSE			Snow Depth	Water Content	Water Content (inches)	
NAME	Number	Elevation	of Survey	(Inches)	(Inches)	Last Year	Average #
DUNGENESS RIVER							
Deer Park	23B04	5200	4/28	16	7.8	-	24.2
MORSE CREEK							
Cox Valley	23B14	4500	4/30	34	16.5	57.9	. –
ELWHA RIVER							
Hurricane	23B03	4500	4/27	24	8.5	34.0	26.9

<sup>#</sup> Average based on 1958-72 average.

### DETACH HERE

### IMPORTANT NOTICE

### WATER SUPPLY OUTLOOK FOR WASHINGTON

If you wish to continue to receive this publication, detach this page, sign your name in the space below, fold on the heavy line, staple or tape the folded page and mail. If more than one copy of the publication is desired, place the number in the box by your signature.

Signed:	
Suggestions, comments or remarks:	

(FOLD HERE)

UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID U.S. DEPARTMENT OF AGRICULTURE



### FIRST CLASS MAIL

SNOW SURVEY SUPERVISOR SOIL CONSERVATION SERVICE 360 U.S. COURTHOUSE SPOKANE, WASHINGTON 99201

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

ROOM 360, U.S. COURT HOUSE SPOKANE, WASHINGTON 99201

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE, \$300



### FIRST CLASS MAIL

FEDERAL - STATE - PRIVATE

COOPERATIVE SNOW SURVEYS

domestic and municipal water water supply for irrigation, supply, hydro-electric power necessary for forecasting generation, navigation, Furnishes the basic data mining and industry "The Conservation of Water begins with the Snow Survey"